**Index of Claims** 

10/559,775

Examiner

Fred M. Teskin

Applicant(s)/Patent under Reexamination

MEULENBRUGGE ET AL.

Art Unit

1713

Rejected Allowed

(Through numeral) Cancelled Restricted

Non-Elected N Interference

**Appeal** Objected

|   |          |            | L        | l              |              |                |              | j            |  | L        | L               |  |  |
|---|----------|------------|----------|----------------|--------------|----------------|--------------|--------------|--|----------|-----------------|--|--|
|   |          |            | Date     |                |              |                |              |              |  |          |                 |  |  |
|   | Cla      | aim        | _        |                | ,            | ,              | Jat          | <del>e</del> |  |          |                 |  |  |
|   | Final    | Original   | 0/0/     | }              |              |                |              |              |  |          |                 |  |  |
|   |          | O          |          | -              | -            |                | 1            | $\vdash$     | ╁  | -        | Н               |  |  |
|   | <u> </u> | 2          | H        |                | <u> </u>     | -              |              | <u> </u>     | $\vdash$   |          | Н               |  |  |
|   |          | 3          | 1        |                |              |                |              |              |  |          | П               |  |  |
|   |          | 4          | 1        |                | Т            | -              |              |              |  |          |                 |  |  |
|   |          | 5          | П        |                |              |                |              |              |  |          |                 |  |  |
|   |          | 6          |          |                |              |                |              |              |  |          |                 |  |  |
|   |          | 7          | Ц        |                |              |                |              |              |  |          | Ш               |  |  |
|   |          | 8          | Ш        | L              |              |                |              |              | L  |          | Ш               |  |  |
|   | L        | 9          | Ш        | <u>_</u>       | L.           |                | _            |              |  |          | Ш               |  |  |
|   |          | 10         | Ц        |                | _            | _              | _            | _            | ᆫ  |          | Щ               |  |  |
|   | <u></u>  | 11 ·<br>12 | 3        |                |              | <u> </u>       | Щ            |              | ᆫ  | L        | Щ               |  |  |
|   | <u> </u> | 12         |          | <u> </u>       | L            | <u> </u>       | <u> </u>     |              | <u> </u>   | _        | Ш               |  |  |
|   |          | 13         | _        | <u> </u>       | -            | ļ              | -            | _            | ļ  | _        | Н               |  |  |
|   |          | 14<br>15   | _        | _              | <u> </u>     |                |              |              |  | -        | Н               |  |  |
|   |          | 15         | $\vdash$ | ┝              | ⊢            | ┢              | ├            | ⊢            | ⊢  | H        | Н               |  |  |
|   | ļ        | 16<br>17   | -        | -              | ⊢            |                |              | ├            | ┢  | H        | Н               |  |  |
|   |          | 18         | _        | H              | ⊢            |                |              | ┢            | ⊢  | H        | Н               |  |  |
|   |          | 19         | ┝        | ├              | ┢            |                |              | ╁╌           |  | -        | H               |  |  |
|   |          | 20         | -        | ┢─             |              | ⊢              |              | $\vdash$     | ⊢  | Н        | Н               |  |  |
|   |          | 21         | -        | <del> </del> — | -            | ╌              | ╁            | $\vdash$     | ┝  | $\vdash$ | Н               |  |  |
|   |          | 22         |          | ┢─             | -            | -              | -            | -            | <del>                                     </del> | $\vdash$ | Н               |  |  |
|   |          | 22<br>23   |          | $\vdash$       |              |                |              | ┢            | $\vdash$   |          | Н               |  |  |
|   |          | 24         |          |                |              |                |              |              |  |          | Н               |  |  |
|   |          | 25         | _        |                | T            |                |              | $\vdash$     |  |          | П               |  |  |
|   |          | 26         | _        | Г              | Π            | Г              |              |              | П  | Г        | П               |  |  |
|   |          | 27         |          |                |              |                |              |              |  |          |                 |  |  |
|   |          | 28         |          |                |              |                |              |              |  |          |                 |  |  |
|   |          | 29         |          |                |              |                |              | L_           |  |          |                 |  |  |
|   |          | 30         |          |                |              | L.             |              |              | L  |          |                 |  |  |
|   |          | 31         |          |                | _            | 匚              | _            |              |  |          | Щ               |  |  |
|   |          | 32         | L_       |                | ļ            | <u> </u>       | L.           |              |  |          | Ш               |  |  |
|   | L        | 33         | ļ        | _              | <u> </u>     | <u> </u>       | ⊢            | <u> </u>     | _  | $\vdash$ | Щ               |  |  |
|   |          | 34         | <u> </u> | <u> </u>       | <del> </del> | <u> </u>       | ⊢            | <u> </u>     |  | $\vdash$ | $\vdash \vdash$ |  |  |
|   |          | 35         | <u> </u> |                | <u> </u>     |                |              | ├            |  | <u> </u> | Н               |  |  |
|   |          | 36<br>37   | H        |                | ⊢            | <del> </del> — | <del> </del> | $\vdash$     | <u> </u>   |          | Н               |  |  |
|   |          | 38         | $\vdash$ | <b></b>        | ├            | $\vdash$       | -            |              | $\vdash$   | $\vdash$ | $\vdash \vdash$ |  |  |
|   |          | 39         |          |                | ┢            | ⊢              | ├─           | <del> </del> | $\vdash$   | $\vdash$ | H               |  |  |
|   |          | 40         | -        | -              | $\vdash$     | $\vdash$       | $\vdash$     | $\vdash$     | $\vdash$   | $\vdash$ | $\vdash \dashv$ |  |  |
|   |          | 41         |          | _              | $\vdash$     | Н              | Н            | $\vdash$     | Н  |          | $\vdash \vdash$ |  |  |
|   |          | 42         | Н        |                |              | $\vdash$       | <u> </u>     | _            | $\vdash$   | $\vdash$ | H               |  |  |
|   |          | 43         |          | -              |              |                | Г            |              |  | П        |                 |  |  |
|   |          | 44         |          |                |              |                |              |              |  |          |                 |  |  |
|   |          | 45         |          |                |              |                |              |              |  | П        |                 |  |  |
| ŀ |          | 46         |          |                |              |                |              |              |  |          |                 |  |  |
| 1 |          | 47         |          |                |              |                |              |              |  |          |                 |  |  |
|   |          | 48         |          |                |              |                |              |              |  |          |                 |  |  |
|   |          | 49<br>50   |          |                |              |                |              |              |  |          |                 |  |  |
|   |          | 50 l       |          | 1              |              | 1 1            | 1 1          |              | 1 1  | 1 7      | 1               |  |  |

| Claim        |  | Date   |              |              |                  |  |  |              | ]  | Cla |       | Date     |            |          |  |  |  |  |  |                 |
|--------------|--|--|--------------|--------------|------------------|--|--|--------------|--|-----|-------|----------|------------|----------|--|--|--|--|--|-----------------|
| -            | 0/0/   | _  |              |              | _                |  |  |              |  |     |       |          |            |          |  |  |  | _  |  |                 |
| rigina       | 15   | ٦  |              |              |                  |  |  |              |  |     | ıal   | Original |            |          |  |  |  |  |  |                 |
| :   <u>E</u> | 1  | •  |              |              | ŀ                |  |  |              |  |     | Final | ij       |            |          | 1  |  |  | ĺ  |  |                 |
| 100          |  |  |              |              |                  |  |  |              |  |     |       | 0        |            | -        |  |  | İ  |  |  |                 |
| Original     | 1  | -  |              |              |                  |  |  |              | Г  | 1   |       | 51       |            | $\top$   | T  |  |  |  |  |                 |
| 2            | $\sqcap$   |  |              |              |                  |  |  |              |  | 1 1 |       | 51<br>52 |            | 一        |  |  | Г  |  |  |                 |
| 3            | Ħ  |  |              |              |                  |  |  |              |  | 1   |       | 53       |            | 十        | T  | $\vdash$   | Т  |  | $\Box$   |                 |
| 3 4          | 11   | $\vdash$   |              | -            | -                |  | -  |              |  | 1   |       | 54       | $\vdash$   | $\top$   | ┰  | $\vdash$   | _  | Ι  | _  |                 |
| 5            | ⇈  | _  |              |              | $\vdash$         |  |  | <u> </u>     | Г  | 1   |       | 55       |            |          | ╆  | Н  |  |  |  |                 |
| 5<br>6<br>7  | Ħ  |  | <u> </u>     |              |                  |  |  | <del> </del> |  | 1   |       | 56       | $\vdash$   | $\top$   | $\vdash$   | ┢  | ┢  |  | _  |                 |
| 7            | H  | $\vdash$   |              |              |                  |  | $\vdash$   | $\vdash$     | $\vdash$   | 1   |       | 57       |            | $\top$   | $\vdash$   | $\vdash$   | $\vdash$   | _  | $\vdash$   |                 |
| 8            | Ħ  |  |              |              |                  |  | ┢  | H            | $\vdash$   | 1   |       | 58       | $\vdash$   | $\top$   | 十  | $\vdash$   | $\vdash$   | $\vdash$   |  | Н               |
| 8            | 1  | _  |              |              |                  |  | _  | _            | _  | 1   |       | 59       | $\vdash$   |          | +-   | -  | $\vdash$   |  | $\vdash$   | Н               |
| 10           | H  | $\vdash$   |              | -            | _                |  |  |              |  | 1   |       | 60       |            |          | $\vdash$   | $\vdash$   | ┪  |  | _  |                 |
| 11.          | ¥  | $\vdash$   |              |              |                  |  | $\vdash$   | H            | $\vdash$   | 1   |       | 61       |            | $\top$   | 1  | $\vdash$   | $\vdash$   | -  | -  | -               |
| 12           | -  | -  | -            | $\vdash$     | $\vdash$         | $\vdash$   | $\vdash$   | $\vdash$     | $\vdash$   | 1   |       | 62       | $\vdash$   | +        | +  | <del>                                     </del> | <del>                                     </del> | $\vdash$   | <del>                                     </del> | $\vdash$        |
| 12<br>13     | <del>                                     </del> | $\vdash$   | $\vdash$     | $\vdash$     | $\vdash$         | <del>                                     </del> | <del>                                     </del> | $\vdash$     | 1  | 1   |       | 63       |            | +-       | 1-   | $\vdash$   | $\vdash$   | $\vdash$   | $\vdash$   | Н               |
| 14           | $\vdash$   | $\vdash$   | <del> </del> | <del> </del> | <del>  -  </del> | <del>                                     </del> | <del> </del>                                     |              | $\vdash$   |     |       | 64       |            | +        | +  | $\vdash$   | $\vdash$   | $\vdash$   | $\vdash$   | Н               |
| 15           | $\vdash$   | $\vdash$   | $\vdash$     | -            | -                |  | ├─   | ┝            | <del>                                     </del> |     | -     | 65       | -          | +        | $\vdash$   | $\vdash$   | $\vdash$   | $\vdash$   | $\vdash$   |                 |
| 16           | $\vdash$   | $\vdash$   | $\vdash$     | $\vdash$     | $\vdash$         | $\vdash$   | $\vdash$   | $\vdash$     |  | -   |       | 66       | $\vdash$   |          | +  | -  | ┢  | $\vdash$   | $\vdash$   | H               |
| 17           | +-   | $\vdash$   | $\vdash$     |              | $\vdash$         | $\vdash$   | $\vdash$   | $\vdash$     | $\vdash$   |     |       | 67       | $\vdash +$ | +        | +  | $\vdash$   | -  | <del>  -</del>                                   |  | Н               |
| 18           | ╁─   | ┢  |              |              |                  |  | $\vdash$   | $\vdash$     | $\vdash$   | 1   |       | 68       | $\vdash$   | +        | ╁  | -  | -  | <del>                                     </del> | -  | Н               |
| 19           | ╁  | ├  | ┝            |              |                  | -  |  | ├-           | $\vdash$   |     |       | 69       | -+         |          | ╁  | $\vdash$   | $\vdash$   |  | -  | -               |
| 20           | <del> </del>                                     | ├  | $\vdash$     | $\vdash$     | _                | $\vdash$   | ⊢  | $\vdash$     | $\vdash$   |     |       | 70       | +          | +        | $\vdash$   | -  | -  | -  |  | H               |
| 21           | -  | -  |              | -            |                  | $\vdash$   | ├  | $\vdash$     |  |     |       | 71       |            | +        | ╁  | ⊢  | -  | -  | -  | H               |
| 22           | $\vdash$   | ├  | -            |              | -                |  |  | ⊢            | ├─   |     |       | 72       |            | +        | $\vdash$   | $\vdash$   | H  | ├-   | -  | Н               |
| 23           | ┢  | ┝  | -            | -            | <u> </u>         | H  | _  | ┝            | ┝  | 1   |       | 73       | -          | $\dashv$ | ╁  | ┝  | -  | <u> </u>   | Н  | H               |
| 24           | ⊢  | $\vdash$   | $\vdash$     | -            | ┝                |  | _  | ┝            | ┢  |     |       | 74       | $\vdash$   | ╅        | ┢  |  | -  | <u> </u>   | H  |                 |
| 25           | ╫  | ┢  | ┢            | -            | ┢                | $\vdash$   | ┢  | -            | ⊢  | 1   |       | 75       | +          | ┿        | ┢  | -  | -  | H  |  | H               |
| 26           | -  | $\vdash$   | $\vdash$     | $\vdash$     |                  | Н  | $\vdash$   | ┢            | $\vdash$   |     |       | 76       | +          | +        | $\vdash$   | _  | $\vdash$   |  | $\vdash$   | $\dashv$        |
| 27           | $\vdash$   | $\vdash$   | $\vdash$     |              | $\vdash$         | -  | -  | _            |  |     |       | 77       |            | +        |  | -  | -  | _  |  | $\vdash$        |
| 28           | $\vdash$   | ┢  | Н            | $\vdash$     | $\vdash$         | -  | $\vdash$   | $\vdash$     |  | 1   |       | 78       |            | +        | 1  | -  | H  |  |  | $\vdash$        |
| 29           | ┢┈   |  | -            | ┢            | $\vdash$         | _  | _  |              | ┢  | 1   |       | 79       | $\dashv$   | +        | ┼  | _  | _  | _  | $\vdash$   | $\vdash$        |
| 30           | $\vdash$   |  |              | $\vdash$     | -                | -  | Η-   |              | -  | 1   | -     | 80       |            | +        |  | -  | -  |  | Н  | Н               |
| 31           | ╁╌   | -  |              | -            | $\vdash$         | -  |  | -            | ┢  | 1   |       | 81       |            |          | 1  |  |  | -  | Н  | Н               |
| 31<br>32     | H  |  | _            | $\vdash$     |                  | _  | _  |              | -  |     |       | 82       | $\dashv$   | +        | <del> </del>                                     |  |  |  | -  |                 |
| 33           | $\vdash$   | <del>                                     </del> | $\vdash$     | $\vdash$     | <u> </u>         | $\vdash$   |  |              | $\vdash$   |     | -     | 83       |            | +-       | +  | $\vdash$   |  | -  | Н  | H               |
| 34           | <del> </del>                                     |  | Н            | $\vdash$     | $\vdash$         | $\vdash$   | H  |              | $\vdash$   |     |       | 84       | -          | +        | +  | $\vdash$   |  | -  | $\vdash$   | $\vdash$        |
| 34<br>35     | -  |  | Н            | $\vdash$     | $\vdash$         | _  | H  |              | $\vdash$   |     |       | 85       | $\vdash$   |          | $\vdash$   | $\vdash$   | $\vdash$   | $\vdash$   |  | $\vdash$        |
| 36           | $\vdash$   |  |              | $\vdash$     | $\vdash$         | Η,   | -  | -            | -  |     |       | 86       | +          | +        | ╁  |  | $\vdash$   | $\vdash$   | Н  | $\vdash$        |
| 37           | $\vdash$   |  |              | $\vdash$     | $\vdash$         | $\vdash$   | <del>  </del>                                    |              | $\vdash$   |     |       | 87       | $\vdash$   | +        | ╆  | ├  | $\vdash$   |  | Н  | $\vdash \vdash$ |
| 38           | $\vdash$   | <b></b>  | -            | $\vdash$     | -                | $\vdash$   |  | <del> </del> | $\vdash$   |     |       | 88       | $\vdash$   |          | $\vdash$   | $\vdash$   | $\vdash$   | Н  | $\vdash$   | Н               |
| 39           | ┢  |  | -            | Н            | $\vdash$         | Н  | H  | <u> </u>     | $\vdash$   |     |       | 89       | -          |          | $\vdash$   | $\vdash$   | $\vdash$   | $\vdash\vdash$                                   | $\vdash\vdash$                                   | $\vdash\dashv$  |
| 40           | $\vdash$   | -  | -            | $\vdash$     |                  | Н  | H  | _            |  | 1 1 |       | 90       | -          | +        | $\vdash$   | $\vdash$   | -  |  |  | $\dashv$        |
| 41           | $\vdash$   |  | -            | -            | $\vdash$         | $\vdash$   | -  | -            | <del> </del>                                     |     |       | 91       |            | +        | +-   | ┢  | -  |  | $\vdash$   | $\dashv$        |
| 42           | $\vdash$   | $\vdash$   |              |              |                  | $\vdash$   | -  | _            | $\vdash$   |     |       | 92       | $\dashv$   | +-       | $\vdash$   |  | -  |  | $\vdash$   | $\dashv$        |
| 43           | $\vdash$   |  |              | -            |                  | Н  |  | -            |  |     | -     | 93       | -          | +        | $\vdash$   | $\vdash$   | _  |  | $\vdash$   | $\vdash$        |
| 44           | $\vdash$   | <u> </u>   |              |              |                  | Н  | Н  | -            | <del> </del>                                     |     |       | 94       | +          | +        | <del> </del>                                     | $\vdash$   |  |  | $\vdash$   | $\vdash \vdash$ |
| 45           |  |  |              | Н            |                  | $\vdash$   | $\vdash$   | _            | -  |     | -     | 95       | $\dashv$   | +        | <del>                                     </del> | $\vdash$   |  |  | $\vdash$   | $\dashv$        |
| 46           |  | -  |              |              |                  | Н  | Н  | $\vdash$     | <del></del>                                      |     |       | 96       | $\dashv$   | +        | ┼  | -  | $\vdash$   |  | $\vdash$   | $\dashv$        |
| 47           | <del>                                     </del> |  |              |              |                  | Н  | $\vdash$   |              | <del>                                     </del> |     |       | 97       | $\dashv$   | +-       | <del>                                     </del> | $\vdash$   | Н  |  | $\dashv$   | $\dashv$        |
| 48           | _  |  | $\vdash$     | $\vdash$     |                  | -  | $\vdash$   |              |  |     |       | 98       | $\dashv$   | +        | $\vdash$   | Н  | $\vdash \vdash$                                  | $\vdash$   | Н  | $\dashv$        |
| 49           |  |  | $\vdash$     | $\vdash$     |                  | $\vdash$   |  |              | _  |     |       | 99       | +          | ╁        | <del>                                     </del> | $\vdash$   | Н  | $\vdash$   | $\dashv$   | $\dashv$        |
| 50           |  | $\vdash$   | $\vdash$     | $\dashv$     | $\dashv$         | $\dashv$   |  | $\vdash$     | _  |     |       | 100      |            | +        | $\vdash$   |  | Н  | $\vdash$   | $\vdash$   | $\vdash$        |
| 1 30         |  |  | ш            |              | ш                | ш  | لب   | لب           | Ļ  | ıl  |       | .00      |            |          |  | L  | ш  |  |  | لـــا           |

| Claim |                   | Date |   |        |          |              |        |          |  |   |
|-------|-------------------|------|---|--------|----------|--------------|--------|----------|--|---|
| Final | Original          |      |   |        |          |              |        |          |  |   |
|       | 101<br>102        |      |   |        |          |              |        |          |  |   |
|       | 102               |      |   |        |          | L            | L      |          | L  |   |
|       | 103               |      |   |        |          |              |        |          |  |   |
|       | 104               |      |   |        |          |              |        |          |  |   |
|       | 104<br>105        |      |   |        |          |              | Г      |          |  |   |
|       | 106               |      |   |        |          |              |        |          |  | П |
|       | 107               |      |   |        |          |              |        |          |  |   |
|       | 107<br>108        |      |   |        |          |              |        |          |  |   |
|       | 109               |      |   |        |          |              |        |          | -  |   |
|       | 110               |      |   |        |          |              |        |          |  |   |
|       | 111               |      |   |        |          |              |        |          |  | П |
|       | 112               |      |   |        |          |              |        |          |  |   |
|       | 112<br>113        |      |   |        |          |              |        |          |  | Н |
|       | 114               | _    | Т | Г      | Т        | $\Box$       | Т      | Т        |  | Н |
|       | 115               | _    |   | Т      |          | $\vdash$     |        | $\vdash$ | $\vdash$   | Н |
|       | 115<br>116        |      |   |        | Т        |              |        | T        | <del>                                     </del> | Н |
| -     | 117               |      |   | Г      | $\vdash$ | $\vdash$     |        |          |  | Н |
|       | 118               |      |   |        |          | $\vdash$     |        |          |  | П |
|       | 118<br>119        |      |   |        |          |              |        | Г        | Т  | П |
|       | 120               |      |   |        |          | Г            | Г      |          |  | П |
|       | 121               |      |   |        |          |              |        |          |  | Н |
|       | 121<br>122        |      |   |        | _        | _            |        |          | _  | П |
|       | 123               |      |   |        |          |              |        |          |  | П |
|       | 124               |      |   |        |          | Г            |        |          |  | П |
|       | 123<br>124<br>125 |      |   |        |          |              |        |          |  | П |
|       | 126<br>127<br>128 |      |   |        |          |              |        |          |  | П |
|       | 127               |      |   |        |          |              |        |          |  |   |
|       | 128               |      |   |        |          |              |        |          |  |   |
|       | 129<br>130        |      |   |        |          |              |        |          |  |   |
|       | 130               |      |   |        |          |              |        |          |  |   |
|       | 131<br>132        |      |   |        |          |              |        |          |  |   |
|       | 132               |      |   |        |          |              |        |          |  |   |
|       | 133               |      |   |        |          |              |        |          |  |   |
|       | 134<br>135        |      |   |        |          |              |        |          |  |   |
|       | 135               |      |   |        |          |              |        |          |  |   |
|       | 136               |      |   |        |          |              |        |          |  |   |
|       | 137               |      |   |        |          |              |        |          |  |   |
|       | 137<br>138        |      |   |        |          |              |        |          |  |   |
|       | 139               |      |   |        |          |              |        |          |  |   |
|       | 140               |      |   |        |          |              |        |          |  |   |
|       | 141               |      |   |        |          | Ш            | ـــــا |          | $\Box$   | Ш |
|       | 142               |      |   | لــــا |          |              |        |          |  |   |
|       | 143               |      |   | Ш      |          | Ш            |        |          |  |   |
|       | 144               |      |   |        |          |              |        |          | _  |   |
|       | 145               |      |   | Ш      | ᆫ        | Ш            | L      | Ш        | Ш  | Ш |
|       | 146               |      |   | Щ.     |          | $oxed{oxed}$ |        | Ш        | L  | Ш |
|       | 147               |      |   |        |          | $\Box$       |        |          |  |   |
|       | 148               |      |   | Щ      |          | Ш            |        |          | Ш  | Ш |
|       | 149               |      |   | Ш      |          | Ш            |        | Ш        | Ш  | Ш |
|       | 150               |      |   |        |          |              |        |          |  |   |